

P. BRUNAVSKIS

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JUL - 7 2000
1630 MAIL ROOM

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/445,375A

DATE: 07/19/2000
TIME: 16:24:22

Input Set : A:\DYOU23SEQ.TXT
Output Set : N:\CRF3\07192000\I445375A.raw

ENTERED

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4 <110> APPLICANT: Kingsman, Susan M.
5   Bebbington, C.R.
6   Ellard, Fiona M.
7   Carroll, Miles W.
9 <120> TITLE OF INVENTION: VECTOR
12 <130> FILE REFERENCE: DYU23.001APC
14 <140> CURRENT APPLICATION NUMBER: 09/445375A
15 <141> CURRENT FILING DATE: 2000-03-21
17 <150> PRIOR APPLICATION NUMBER: PCT/GB98/01627
18 <151> PRIOR FILING DATE: 1998-06-04
20 <150> PRIOR APPLICATION NUMBER: GB9711579.4
21 <151> PRIOR FILING DATE: 1997-06-04
23 <160> NUMBER OF SEQ ID NOS: 24
25 <170> SOFTWARE: FastSEQ for Windows Version 4.0
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 910
29 <212> TYPE: DNA
30 <213> ORGANISM: Artificial Sequence
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Coding sequence of a 5T4scFv designated 5T4scFv.1.
35 <221> NAME/KEY: misc_feature
36 <222> LOCATION: (1)...(910)
37 <223> OTHER INFORMATION: n = A,T,C or G
39 <400> SEQUENCE: 1
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41 gtgaagatat cctgcaaggc ttctgggttac tcattcactg gctactacav ksckasgyst 120
42 gyytgactg ggtgaagcag agccatggaa agagccttga gtggattgga cgtmhwvksh 180
W--> 43 gkswgrratta atcctaacia tgggtgttact ctctacaacc agaaattcaa ggacaannng 240
W--> 44 vtynkkdkgg ccatattaac tgtagacaag tcattccacca cagcctacat ggagctccat 300
45 vdksssttym gcagcctgac atctgaggac tctgcggtct attactgtgc aagatctact 360
46 rstdsavvy carstatgat tacgaactat gttatggact actgggggtca agtaacctca 420
W--> 47 gtcacmtnyv mdywgvtsvt cgtctcctca ggtggtggtg ggagcgggtg tggcggcact 480
48 ggcggcgccg vssggggsgg ggtggggatc tagtattgtg atgaccaga ctccacatt 540
49 cctgcttgtt tcagcagssv mtttvsagga gacagggtta ccataacctg caagccaggt 600
W--> 50 cagagtgtga gtaatgagdr vttckassvs ndtgtagdtg ggtaccaaca gaagccaggg 660
51 cagtcctcta cactgctcat atvawykgt cctatacatc cagtcgctac gctggagtcc 720
52 ctgacgcgtt cattggcagt sytssryagv drgsggatat gggacggatt tcactttcac 780
53 catcagcact ttgcagcgtg aagagygtgt tstadccgtg cagtttattt ctgtcagcaa 840
W--> 54 gattataatt ctctccgac gttcgavycd ynstgtggag gcaccaagct ggaaatcaaa 900
55 cggggggkkr
57 <210> SEQ ID NO: 2
58 <211> LENGTH: 2239
59 <212> TYPE: DNA
60 <213> ORGANISM: Artificial Sequence
62 <220> FEATURE:
63 <223> OTHER INFORMATION: Coding sequence of a 5T4scFv designated 5T4scFv1.
65 <221> NAME/KEY: misc_feature
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66 <222> LOCATION: (1)...(2239)
67 <223> OTHER INFORMATION: n = A,T,C or G
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71 tgctacaggt gtccactccg aggtccagct tcagcagctt ggacctgacc tatgvhsvsq 120
72 dggtgaagcc tggggcttca gtgaagatat cctgcaaggc ttctggttac tvkgasvksk 180
73 kasgycattc actggctact acatgcactg ggtgaagcag agccatggaa agagcstggy 240
74 mhwvksghks cttgagtggg ttggacgtat taatcctaac aatggtgtta ctctctacaa 300
W--> 75 wgrnnngvty nccagaaatt caaggacaag gccatattaa ctgtagacaa gtcacccacc 360
76 akdkkatvdk sstcagccta catggagctc cgcagcctga catctgagga ctctgcggtc 420
77 tattaymrst sdsavytact gtgcaagatc tactatgatt acgaactatg ttatggacta 480
W--> 78 ctgggggycar stmntyvmly wgtcaagtaa cctcagtcac cgtctctctc ggtggtggtg 540
79 ggagcgggtg tgvtstvtss gggsgggcgc gcactggcgc cggcggtatc agtattgtga 600
80 tgaccagagc tcccacaggt ggggssvmtt ttctctgctt gtttcagcag gagacagggg 660
81 taccataacc tgcaaggcca gvsagdrvtc ckastcagag tgtgagtaat gatgtagctt 720
W--> 82 ggtaccaaca gaagccaggc cagtsvsndv awykgctcct acactgctca taccctatac 780
83 atccagtcgc tacgctggag tccttstsyf ssryagvgat cgcttcattg gcagtgagata 840
84 tgggacggat ttcaacttca ccatcagdrq sgygtdttsc actttgcagg ctgaagacct 900
85 ggcagtttat ttctgtcagc aagattatat adavycdyat tctctctcga cgttcggtgg 960
W--> 86 aggcaccaag ctggaaatca aacggggcns tgggtkkrat ccaccaaggc cccatcggtc 1020
87 tcccccttgc caccctcctc caagagcacs tkgsavssks tctctggggg cacagcggcc 1080
88 ctgggctgcc ttgctcaagga ctacttcccc gsggtaagcv kdyaaccggt gacggtgtcg 1140
W--> 89 tggaaactcag gcgccctgac cagcggcgctg cacvtvswms gatsgvhacc tccccggctg 1200
90 tctacagtc ctcaggactc tactccctca gcagcgttav ssqysssavg tgaccgtgcc 1260
W--> 91 ctccagcagc ttgggcaccc agacctacat ctgcaacgvt vsssgttypn tgaatcaca 1320
W--> 92 gcccagcaac accaaggtgg acaagaaagt tgagcccaaa vnhksntkvd kkvktcttgt 1380
93 gacaaaaactc acacatgccc accgtgccca gcacctgaac tcctscdkth tccagggggg 1440
94 accgtcagtc ttctctctcc ccccaaaacc caaggacacc ctcaggsvkk dttgatctcc 1500
95 cggaccctcg aggtcacatg cgtggtggtg gacgtgagcc acmsrtvtev vvdvshgaag 1560
W--> 96 accctgaggt caagtccaac tggtagctgg acggcggtga ggtgcadvkn wyvdgvvhta 1620
W--> 97 atgccaagac aaagccgcgc gaggagcagt acaacagcac gtaccgtgna ktkrynstyr 1680
W--> 98 tggtagcagc cctcaccgtc ctgcaccagg actggtgtaa tggcaaggag vsvtvhdmn 1740
W--> 99 gktacaagtg caaggtctcc aacaaagccc tcccagcccc catcgagaaa acykckvsnk 1800
100 aaktcatctc caaagccaaa gggcagcccc gagaaccaca ggtgtacacc ctgcskakgr 1860
W--> 101 vytccccatc cgggagtgag ctgaccaaga accaggtcag cctgacctgc ctgsrdtknv 1920
102 stcgtcaaag gcttctatcc cagcgacatc gccgtggagt gggagagcaa tggvkgysda 1980
W--> 103 vwsnggcagc cggagaacaa ctacaagacc acgctctccg tgctggactc cgacgnnykt 2040
104 tvdsdgcctc ttctctctct acagcaagct caccgtggac aagagcaggt ggcaggsysk 2100
W--> 105 tvdksrwcag gggaaagctt tctcatgctc cgtgatgcat gaggctctgc acaaccagnv 2160
W--> 106 scsvmhahnh ctacacgcag aagagcctct ccctgtctcc gggtaaataa gtgcgacggc 2220
107 ytksssgkvr rcaagctts 2239
109 <210> SEQ ID NO: 3
110 <211> LENGTH: 1809
111 <212> TYPE: DNA
112 <213> ORGANISM: Artificial Sequence
114 <220> FEATURE:
115 <223> OTHER INFORMATION: Coding sequence of B7-1.5T4.1
117 <221> NAME/KEY: misc_feature
118 <222> LOCATION: (1)...(1809)

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119 <223> OTHER INFORMATION: n = A,T,C or G
121 <400> SEQUENCE: 3
122 atggggccaca cacggaggca gggaacatca ccatccaagt gtccatacct mghtrrgtss 60
W--> 123 keycaatttc ttccagctct tgggtgctggc tgggtcttct cacttctgtt cagnvagshc 120
124 sgtgttatcc acgtgaccaa ggaagtgaag gaagtggcaa cgctgtcctg tgvhvtkvkv 180
W--> 125 atscggtcac aatgtttctg ttgaagagct ggcacaaact cgcatctact ggcaghnvsv 240
126 atrywaaagg agaagaaaaa ggtgctgact atgatgtctg gggacatgaa tataatkkkmv 300
W--> 127 tmmsgdmmng cccgagtaca agaaccggac catctttgat atcactaata acctctccwy 360
W--> 128 knrtdtnnss ttgtgatcct ggctctgcgc ccatctgacg agggcacata cgagtgtgtv 420
129 arsdgtycvt gttctgaagt atgaaaaaga cgctttcaag cgggaacacc tggctgaagv 480
130 kykdakrhat gacgttatca gtcaaagctg acttcctac acctagtata tctgactttv 540
131 tsvkadtsdd gaaattccaa cttctaatat tagaaggata atttgcata cctctggagg 600
W--> 132 tsnrrestsg gttttccaga gcctcacctc tcctggttgg aaaatggaga agaattaaat 660
W--> 133 ghswnngncca tcaacacaac agtttcccaa gatcctgaaa ctgagctcta tgctgttant 720
134 tvsdtayavag cagcaaaactg gatttcaata tgacaaccaa ccacagcttc atgtgtctss 780
W--> 135 kdnmttnhsm ccatcaagta tggacattta agagtgaatc agacctcaa ctggaatata 840
W--> 136 akyghrvntn wntccaagca agagcatttt cctgatggag gcgggggacg cgaggtccag 900
137 ctttkhdggg gsvcagcagt ctggacctga cctggtgaag cctggggcct cagtgaagat 960
138 atcsgdvkgc svksctgcaa ggcttctggt tactcattca ctggctacta catgcaactg 1020
139 gtgackasgy stgyymhwva gcagagccat ggaaagagcc ttgagtggat tggacgtatt 1080
W--> 140 aatcctaack shgkswgrnn aatggtgtta ctctctacaa ccagaaattc aaggacaagg 1140
W--> 141 ccatattaac ngvtynkkdk attgtagaca agtcatccac cacagcctac atggagctcc 1200
142 gcagcctgac atvdksttta ymrstctgag gactctgcgg tctattactg tgcaagatct 1260
W--> 143 actatgatta cgaacsdsav yycarstmtn tatgttatgg actactgggg tcaagtaacc 1320
144 tcagtcaccg tctcctcagg yvmdywgvtv vtvsstggtt ggtgggagcg gtggtggcgg 1380
145 cactggcggc ggcggatcta gtattggggs ggggtggggs stgatgacc agactccac 1440
146 attcctgctt gtttcagcag gagacagggt tvmtttvsag drvaccataa cctgcaaggc 1500
W--> 147 cagtcagagt gtgagtaatg atgtagcttg gtattckass vsndvawycc aacagaagcc 1560
148 agggcagctc cctacactgc tcataccta tacatccakg stsytsgtcg ctacgctgga 1620
149 gtccctgacg gcttcattgg cagtggatat gggacgsrya gvdrgsgygt gatttcaact 1680
150 tcaccatcag cactttgcag gctgaagacc tggcagttta dttstadavy tttctgtcag 1740
W--> 151 caagattata attctcctcc gacgttcggt ggaggcacca cdynstgggt agctggaaat 1800
152 caaataakk 1809
154 <210> SEQ ID NO: 4
155 <211> LENGTH: 887
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial Sequence
159 <220> FEATURE:
160 <223> OTHER INFORMATION: Human B7-2 sequence followed by a linker.
162 <221> NAME/KEY: misc_feature
163 <222> LOCATION: (1)...(887)
164 <223> OTHER INFORMATION: n = A,T,C or G
166 <400> SEQUENCE: 4
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W--> 168 tgctcctctg aagattcaag cttatttcaa tgagactgca gacctccat akayntadgc 120
W--> 169 caatttgcaa actctcaaaa ccaaagcctg agtgagctag tagtatttca nsnssvvtgg 180
W--> 170 caggaccagg aaaacttggt tctgaatgag gtatacttag gcaaagawdn vnyykgaaa 240
171 ttgacagtg ttcatccaa gtatatgggc gcacaaagtt ttgattkdsv hskymgrtsd 300
W--> 172 cggacagttg gacctgaga cttcacatc ttcagatcaa ggacaagggc sdswrhnhkd 360

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173 kgttgtatca atgtatcatc catcacaaaa agccacacagg aatgattcgc atychhkkktg 420
W--> 174 mrrcaccaga tgaattctga actgtcagtg cttgctaact tcagtcaacc tghmnssvan 480
W--> 175 saaatagtag caatttctaa tataacagaa aatgtgtaca taaatttgac cvsntnvynt 540
176 tgcctcatcta tacacggtta cccagaacct aagaagatga gtgttttgct csshgykkms 600
W--> 177 vaagaaccaa gaattcaact atcgagtatg atggtattat gcagaaatct crtknstydg 660
W--> 178 mksaagataa tgtcacagaa ctgtacgacg ttcccatcag cttgtctggt tcadnvtadv 720
W--> 179 sssvsttccc tgaagttagc agcaatatga ccatctctg tattctggaa actgadvtstn 780
180 mtctdcaaga cgcggtcttt atcttcacct ttctctatag agcttgagga ccctcktrss 840
181 sdagcctccc ccagaccaca ttcttgaggg cgggggatcc dhggggs 887
183 <210> SEQ ID NO: 5
184 <211> LENGTH: 1518
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: pBSII/Leader/scFv/HG1.
191 <400> SEQUENCE: 5
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193 ctcatctctc tctttgtgct gctgattcgt ctttcacaa tgctctcaga tgttgatgaa 120
194 caactgtcca agtcagtgaa agataaggta ttgctgcctt gccgttacaa ctctccgcat 180
195 gaagatgagt ctgaagaccg aatctactgg caaaaacatg acaaagtggg gctgtctgtc 240
196 attgctggga aactaaaagt gtggcccagag tataagaacc ggactttata tgacaacact 300
197 acctactctc ttatcatcct gggtctgggt ctttcagacc ggggcacata cagctgtgtc 360
198 gttcaaaaaga aggaagaggg aacgtatgaa gttaaacact tggctttagt aaagtgtgcc 420
199 atcaaaagctg acttctctac ccccaacata actgagctcg gaaacccatc tgcagacact 480
200 aaaaggatta cctgcttttg ttccgggggt ttcccaaagc ctgccttctc ttggttgaa 540
201 aatggaagag aattacctgg catcaatacg acaatttccc aggatcctga atctgaattg 600
202 tacaccatta gtagccaact agatttcaat acgactcgca accacacat taagtgtctc 660
203 attaaatatg gagatgtcca cgtgtcagag gacttcacct gggaaaaacc ccagaagac 720
204 cctctgata gcaagcccgg ggggtggggg agcgggtggg gcggcagtg gggcgccgga 780
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207 cagagccatg gaaagagcct tgagtggatt ggacgtatta atcctaaca tgggtgtact 960
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210 tctactatga ttacgaacta tgttatggac tactgggggtc aagtaacttc agtcaccgtc 1140
211 tcttcagggt gtgggtgggag cgggtggggc ggcaactggc gcggcggatc tagtattgtg 1200
212 atgacccaga ctcccacatt cctgcttgtt tcagcaggag acagggttac cataacctgc 1260
213 aaggccagtc agagtgtgag taatgatgta gcttggtacc aacagaagcc agggcagctc 1320
214 cctacactgc tcatatccta tacatccagt cgctacgctg gagtccctga tcgcttcatt 1380
215 ggcagtggtg atgggacgga tttaactttc accatcagca ctttgcaggc tgaagacctg 1440
216 gcagttttatt tctgtcagca agattataat tctctccga cgttcgggtg aggcaccaag 1500
217 ctggaatca aacggtaa 1518
219 <210> SEQ ID NO: 6
220 <211> LENGTH: 2090
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: 5T4 scFv-human IgE fusion construct.
227 <400> SEQUENCE: 6

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228 ctcgagccac catgggagtg agctgtatca tcctcttctt ggtagcaaca gctacaggtg 60
229 tccactccga ggtccagctg cagcagctcg gacctgacct ggtgaagcct ggggcttcag 120
230 tgaagatata ctgcaaggct tctgggtact cattcactgg ctactacatg cactgggtga 180
231 agcagagcca tggaaagagc cttgagtgga ttggacgtat taatcctaac aatgggtgta 240
232 ctctctacaa ccagaaattc aaggacaagg ccatattaac tgtagacaag tcattccacca 300
233 cagcctacat ggagctccgc agcctgacat ctgaggactc tgcggtctat tactgtgcaa 360
234 gatctactat gattacgaac tatgttatgg actactgggg tcaagtaact tcagtccacc 420
235 tctcttcagg tgggtgtggg agcgggtggg gcggcactgg cggcggcgga tctagtattg 480
236 tgatgaccca gactcccaca ttctgtcttg ttccagcagg agacagggtt accataacct 540
237 gcaaggccag tcagagtgtg agtaatgatg tagcttggtg ccaacagaag ccaggggcagt 600
238 ctccctacat gctcatatcc tatacatcca gtcgctacgc tggagtcctt gatcgcttca 660
239 ttggcagtggt atatgggacg gatttcactt tcaccatcag cactttgcag gctgaagacc 720
240 tggcagttta ttctgtcag caagattata attctctccc gacgttcggt ggaggacca 780
241 agcttgaaat caaacgggac tccacacaga gccatccctg ctcccccttg acccgtgct 840
242 gcaaaaacat tccttccaat gccacctccg tgaactgtgg ctgcctggcc acgggctact 900
243 tccccggagc ggtgatgggt acctgggaca caggctccct caacgggaca actatgacct 960
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249 tcatggacgt ggaactgtcc accgcctcta ccacgcagga ggggtgagct gcctccacac 1320
250 aaagcgagct caccctcagc cagaagcact ggctgtcaga ccgcacctac acctgccagg 1380
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252 gaggggtgag cgctaccta agccggccca gcccggttca cctgttcac cgaagtcgc 1500
253 ccacgatcac ctgtctgtgt gtggacctgg caccagcaa ggggacctgt aacctgacct 1560
254 ggtcccgggc cagtgggaag cctgtgaacc actccaccag aaaggaggag aagcagcgca 1620
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257 ccaagaccag cgcccccgtg gctgccccgg aagtctatgc gtttgcgacg ccggagtggc 1800
258 cggggagccg ggacaagcgc accctgcctt gcctgatcca gaacttcag cctgaggaca 1860
259 tctcggtgca gtggctgcac aacgaggtgc agctcccgga cgcgccgac agcacgacgc 1920
260 agccccgcaa gaccaagggc tccggtctct tegtcttcag ccgcctggag gtgaccaggg 1980
261 ccgaatggga gcagaaagat gagtctatct gccgtgcagt ccatgaggca gcgagcccct 2040
262 cacagaccgt ccagcgagcg gtgtctgtaa atcccggtaa atgagagctc 2090
264 <210> SEQ ID NO: 7
265 <211> LENGTH: 945
266 <212> TYPE: DNA
267 <213> ORGANISM: Artificial Sequence
269 <220> FEATURE:
270 <223> OTHER INFORMATION: B7-EGF fusion construct.
272 <400> SEQUENCE: 7
273 atggcttgca attgtcagtt gatgcaggat acaccactcc tcaagtttcc atgtccaagg 60
274 ctcatctctt tctttgtgct gctgattcgt ctttcacaag tgtcttcaga tgttgatgaa 120
275 caactgtcca agtcagtgaa agataaggta ttgtgcctt gccgttacaa ctctccgcac 180
276 gaagatgagt ctgaagaccg aatctactgg caaaaacatg acaaagtggg gctgtctgtc 240
277 attgctggga aactaaaagt gtggcccgag tataagaacc ggactttata tgacaacact 300
278 acctactctc ttatcatcct gggcctgtgc ctttcagacc ggggcacata cagctgtgtc 360
279 gttcaaaaga aggaaagagg aacgtatgaa gttaaactat tggctttagt aaagttgtcc 420

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

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TIME: 16:24:23

Input Set : A:\DYOU23SEQ.TXT

Output Set: N:\CRF3\07192000\I445375A.raw

L:43 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:44 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:47 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:75 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:78 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:98 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:99 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:101 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:125 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:147 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4